

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (original) Molecular complex between a tissue extract containing at least one known component and unknown components and a molecular vector comprising a particle bearing sugars and/or polypeptides, said molecular vector being able to recognize:

- said known component of said tissue extract, and
  - a phagocytic receptor of monocyte derived cells,
- with the proviso that said polypeptides are different from antibodies.

2. (original) Molecular complex according to claim 1, wherein the molecular vector comprises a particle bearing polypeptides and/or sugars such that:

- at least one of the said polypeptides and/or sugars recognizes said known surface component of the tissue extract,
- at least one of the said sugars and/or polypeptides recognizes phagocytic receptors of monocyte derived cells such as receptors for mannose or for oligosaccharides or Fe receptors of monocyte derived cells.

3. (original) Molecular complex according to claim 2, wherein the molecular vector comprises or is a particle of about 0,1 to about 2  $\mu$ m of biocompatible polymer comprising

- surface polypeptides and/or sugars, preferably covalently linked to the surface of said particle, with said surface polypeptides and/or sugars recognizing said known component of the tissue extract, and

- mannosylated residues recognizing the mannose or oligosaccharide receptors of monocyte derived cells.

4. (previously presented) Molecular complex according to claim 1, wherein the tissue extract comprises macroscopic fragments or killed or irradiated or haptenized human or animal tumor cells such as lysates or apoptotic bodies, or killed pathogens, such as viruses or bacteria.

5. (original) Molecular complex according to claim 4, wherein the polypeptide of the particle recognises one known epitope of the tissue extract chosen among known tumor antigens such as (tumor peptide antigen) MelanA/MART-1, MAGE, BAGE, GAGE families; MUC, EGF-R, ERB-2, PSA, PSMA, HSP70, CEA, P53, RAS, Tyrosinase, gp100,....

6. (previously presented) Molecular complex according to claim 1, wherein the tissue extract comprises normal tissue parts such as tissue membranes, tissue factors, tissue proteins, macroscopic fragments of tissue such as lysates or apoptotic bodies, said tissue being originating from any part of human or

animal body or cellular extracts thereof, in particular from thymus, lung, pancreas, cartilage, endothelium, neuromuscular junctions, prostate, sexual organs, bladder, muscles, peripheral nerves, CNS extracts, spleen, liver, bone, heart, skin cells.

7. (original) Molecular complex according to claim 6, wherein the polypeptide and/or sugars of said particle forms high affinity binding with any component of said tissue extract.

8. (previously presented) Molecular complex according to claim 1, wherein the monocyte derived cells recognized by said molecular complex are macrophages, dendritic cells, or antigen presenting cells.

9-16. (canceled)

17. (New) A molecular complex, comprising:

a molecular vector and a tissue extract, said tissue extract comprising a known component and a mixture of proteins and saccharides in cellular extracts of tumors or tissues, wherein the known component is selected from the group consisting of identified tissue antigens, polypeptides, oligosaccharides, haptens expressed on the cell membrane of a tissue or tumor, and an hapten transfected on the cell membrane of a tissues or a tumor,

wherein said molecular vector comprises a particle bearing sugars and/or polypeptides, said molecular vector

recognizes said known component of said tissue extract, and a phagocytic receptor of a monocyte derived cells selected from the group consisting of macrophages, dendritic cells, and antigen presenting cells,

with the proviso that said polypeptides are different from antibodies.

18. (new) The molecular complex according to claim 17, wherein the molecular vector comprises a particle bearing polypeptides and/or sugars so that:

- at least one of the said polypeptides and/or sugars recognizes said known surface component of the tissue extract,
- at least one of the said sugars and/or polypeptides recognizes phagocytic receptors of monocyte derived cells.

19. (new) The molecular complex according to claim 18, wherein the molecular vector comprises or is a particle of about 0.1 to about 2  $\mu$ m of biocompatible polymer comprising

- surface polypeptides and/or sugars, covalently linked to the surface of said particle, with said surface polypeptides and/or sugars recognizing said known component of the tissue extract, and

- mannosylated residues recognizing the mannose or oligosaccharide receptors of monocyte derived cells.

20. (new) The molecular complex according to claim 9, wherein the tissue extract comprises macroscopic fragments or killed or irradiated or haptenized human or animal tumor cells such as lysates or apoptotic bodies, or killed pathogens, such as viruses or bacteria.

21. (new) The molecular complex according to claim 20, wherein said known component is a tumor antigens selected from the group consisting of MelanA/MART-1, MAGE, BAGE, GAGE families; MUC, EGF-R, ERB-2, PSA, PSMA, HSP70, CEA, P53, RAS, Tyrosinase, and gp100.

22. (new) The molecular complex according to claim 17, wherein the tissue extract comprises normal tissue parts selected from the group consisting of tissue membranes, tissue factors, tissue proteins, macroscopic fragments of tissues, lysates, apoptotic bodies, said tissue originates from any part of human or animal body or cellular extracts thereof.

23. (new) The molecular complex according to claim 22, wherein the polypeptide and/or sugars of said particle forms high affinity binding with a component of said tissue extract.

24. (new) The molecular complex according to claim 18, wherein such at least one of the said sugars and/or polypeptides

recognizes phagocytic receptors of monocyte derived cells is a receptor for mannose or for oligosaccharides or Fc receptors of monocyte derived cells.

25. (new) The method according to claim 22, wherein said tissue originates from a thymus, lung, pancreas, cartilage, endothelium, neuromuscular junctions, prostate, sexual organs, bladder, muscles, peripheral nerves, CNS extracts, spleen, liver, bone, heart, or skin cells.

26. (New) A molecular complex, comprising:

a molecular vector and a tissue extract, said tissue extract comprising a known component and a mixture of proteins and saccharides in cellular extracts of tumors or tissues, the known component is selected from the group consisting of apoptotic bodies and hepatocytes,

wherein said molecular vector is a particle of about 0.1 to about 2  $\mu\text{m}$  of biocompatible polymer comprising

- surface polypeptides and/or sugars, covalently linked to the surface of said particle, with said surface polypeptides and/or sugars recognizing said known component of the tissue extract, and

- mannosylated residues recognizing the mannose or oligosaccharide receptors of monocyte derived cells selected from

the group consisting of macrophages, dendritic cells, and antigen presenting cells,

with the proviso that said polypeptides are different from antibodies.

27. (new) The molecular complex according to claim 26, wherein said known component is an apoptotic body from human melanoma cell line M17 obtained by UV radiation.

28. (new) The molecular complex according to claim 26, wherein said known component is a hepatocyte and wherein said monocyte derived cell is a macrophage with liver tissue specificity.